

## **The Revolt of Saint Birgitta A Study in Textual Intensity**

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*Abstract* The study demonstrates how the method Perspective Text Analysis (PTA/Vertex) can be used on the grapheme system of written language. The intricate way in which the graphemes interact with each other through the formation of larger units and their assembly into text is a text intention process, steered by the Agent component, of which a text producer is unaware. The interaction means that grapheme strings and sequences of grapheme strings rotate rhythmically and in a forward motion, thereby forming space. For the study, textual space has been represented graphically in Potential Energy Surfaces (PES), which access that which is deeply integrated, supplemented with contour graphs, which provide an overview of energy shifts on the expanded text surface. Two texts of Saint Birgitta (Bridget of Sweden, c. 1303-1372) have been studied, the Latin version of the so-called "revolt revelation", part of *Revelationes extravagantes*, and the original in Swedish (now Old Swedish), one of the very few original manuscripts preserved. The two texts have shown that they represent two variants of energy. When Birgitta wrote her appeal to King Magnus in her native language, she did so in a controlled frame of mind, while the text became more intense when the text was transformed into Latin.

One of Sweden's greatest personalities from the Middle Ages is Birgitta Birgersdotter, who later became known as Saint Birgitta for her so-called revelations, which she believed were sent from God, who spoke to the humans through her. When, after her husband's death, she decided to live a God-fearing life, she was initially unsure of how to perceive the visions she had, but her confessor, the very prominent theologian Mats Övedsson, Master Mathias, could assure her after some examination that what she experienced was indeed the word of God and that she was indeed chosen. After that, she threw herself into public life where, at appropriate times, she placed her revelations, which writers and researchers worldwide have described and interpreted.

When it comes to Birgitta's language, it is usually the rhetoric and imagery that are highlighted (e.g. Bergh, 2002; Wikipedia, 2021). This study will deal with the linguistic expression at the grapheme level, i.e. the level where the thermodynamic flow of a text develops. The method for the purpose is Perspective text analysis (PTA/Vertex). The method, which is based on the AaO axiom, is developed to examine the internal dynamics of texts, which means what works but is not seen in the text-forming flow and can be called energy, among other things. The method is related to string theory and the mathematics that has been developed

for the calculation of distances in a space as well as it has a certain connection to the discovery of topological phase transitions. In this way, the method includes both a language theory and a text theory. (For more detailed study, see e.g. B. Bierschenk, 1993/2013, 2011; I. Bierschenk, 1999/2003, 2011; I. Bierschenk & B. Bierschenk, 2004, 2011). All writings on the theory and application of the method are available for free download at <https://archive.org/details/studiesinconsciousness/>.

Birgitta wrote down her revelations in her mother tongue but then dictated them to her two secretaries, Peter Olofsson from Skänninge and Peter Olofsson from Alvastra. They both took turns translating her dictum into Latin, the international language of the time. As the translation took place, her original notes were lost (Bergh, 2002, pp. 21-22). A few leaves have been preserved, the so-called Birgitta autographs. During her stay in Rome, where she arrived in 1349, Birgitta got to know the former Spanish bishop Alfonso of Jaén. He was commissioned by her to edit the Latin texts and they were published a few years after her death under the title *Revelationes celestes* (*Heavenly revelations*) in connection with the negotiations for canonization. The work was widely spread by being translated into several of the European languages, including back to Swedish, which happened in the 15th century.

The text to be used in this study concerns Birgitta's criticism of King Magnus Eriksson's rule. It is called the "revolt revelation" and is part of the collection *Revelationes extravagantes* (80:4-13, ed. by Lennart Hollman, 1956). One reason for the choice of text is that it is one of the very few that is also found in the original in the Birgitta autographs, and which therefore invites comparisons with the Latin version. The text was written in Rome in the 1360s. Here, Birgitta uses Virgin Mary as mouthpiece to give instructions to some imaginary envoys, who are to deliver a message to King Magnus. The section that follows here is the current one for the analysis (sections 5-10). Appendix 1 gives the English translation.

/.../ "Nos habemus aliquid dicere vobis tangens salutem anime vestre, quod rogamus vos sub sigillo confessionis tenere." /.../ "Vos habetis pessimam famam in toto regno, dicentem vos habere et exercere naturalem commixtionem et turpitudinem cum masculis contra naturalem dispositionem. Quod verisimile videtur ex eo, quod plus diligitis quosdam viros quam Deum vel animam propriam aut propriam vxorem. Secundo dubitari potest, an habetis fidem rectam, quia interdicti ab ecclesia audire missam intrastis nichilominus ecclesias et audistis missas. Tercio estis predo corone et bonorum regni. Quarto, quod estis proditor famulorum et subditorum vestrorum, qui fideliter seruiebant vobis et filio vestro, quos tradidistis voluntarie in manus inimici eorum pessimi cum tota terra Scanie, pro cuius malicia et fallacia numquam eo vivente tute poterunt securari. Si decreveritis peccata ista emendare et terras alienatas reuincere, seruimus vobis. Sin autem, committatis regnum filio vestro sub iuramento prestitum, quod velit terras alienatas reuincere, communitatem diligere, militibus suis fidelis existere et omnes secundum leges patrie iuste et pie regere et gubernare." /.../

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### ***Basic Principles of a PTA/Vertex Analysis***

Through empirical studies of texts in different languages, it was very early discovered that the Agent component [A] and the Objective component [O] must be treated as two clock-like pendulum movements, swinging individually but interacting within the unit AaO, where (a) stands for action, represented by a verb.

**Table 1**

*String rotation: basic principle*

<i>FC</i> <i>1</i>	<i>FC</i> <i>2</i>	<i>Rotati</i> <i>on</i>
A <sub>1</sub>		180°
a		
Ø <sub>O1</sub>		
	A <sub>2</sub>	90°
	a	
	O <sub>2</sub>	90°

The prerequisite is that the “functional clause” (FC), which represents AaO, is described as a structure consisting of 360°. Each A and O respectively rotates 180°. Where the Objective in the first FC is implicit, it is rooted in the next FC. The rotation value is then halved to 90° for the two strings. Table 1 above shows the principle (from I. Bierschenk, 2011, p. 25). The process is controlled by specific messengers helping to identify a unique pattern, here called case, which can be used to measure the string rotations. Table 2 shows an example of rotations from the Latin Birgitta text.

**Table 2**

*Measurement of text in radians*

<i>Strings</i>	<i>Number</i>	<i>Case</i>	<i>Red Thread</i>	<i>Word</i>	<i>Graphe</i>	<i>Measurement within</i>
			<i>virtual</i>	<i>physical</i>	<i>real</i>	<i>(in Rad<sup>1</sup>)</i>
			W= 1/1	W=1/1 0	W= 1/100	
Nos	3	A5	3.14	0.314	0.0314*3	3.5482
habemus	7			0.314	0.0314*7	0.5338
aliquid	6	O5	3.14	0.314	0.0314*6	0.5024
						4.1762
Ø <sub>A</sub>		A8	5.5			=5.5-(ROT(3.5482))
						3.6163
dicere	6			0.314	0.0314*6	0.5024
vobis	5	O5	3.14	0.314	0.0314*5	0.4710
						4.1134
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tenere	6			0.314	0.0314*6	0.5024
Ø <sub>o</sub>		O1				0
.	1			0.314	0.0314*1	0.3454
						0.8478

<sup>1</sup> For measurement in radians (Rad) [ $\text{arc } \alpha = 2 \pi(i \phi/360)$ ] and [ $\text{arc } \beta = 2\pi(i\theta/360)$ ] apply. Hestenes (1986/1993, p. 75) underlines that the exponential function and its series expansion requires that angles be measured in radians.

Strings are realized the moment a verbal flow is produced. The symbol W (winding) refers to the measure of rotation, the magnitude of which is related to three levels. The verb can be seen as a suspension device, and in that function it controls two pendulums that are equal in length but generate their swings with varying length and force. The interacting oscillations must be asymmetrical for anything meaningful to be perceived.

The base value of the stroke of each component is calculated as ( $W=1/1$ ). This rotation is invisible and is called the red thread in the table. Information can be realized on the physical level or exist implicitly. At the physical level, the variables are calculated in the form of words, whose magnitude ( $W=1/10$ ) is added to the value of the component. The real level refers to the vibrations of the graphemes which is calculated by ( $W=1/100$ ) multiplied by the number of graphemes per word.

To obtain the rotation value of each component (e.g. the case of O5, *alquid*), we first calculate  $0.0314 * 6$  (the number of graphemes within string) +  $0.314$  (string within component). The verb (here *habemus*) is calculated in the same way and the two strings are summed. To that is added the base value (3.14) of the component O5 and we get (4.1762). The function of the verb is calculated only at the grapheme and word level and is added to the Objective component.

An FC means that the location of the components on both sides of the verb is fixed. If a component is missing, it is replaced with a placeholder (Ø<sub>A</sub> or Ø<sub>O</sub>). As soon as a verb is present, an FC must be identified and the slots filled, which means a top-down or bottom-up retrieval. The value of Ø<sub>A</sub> is taken from A in the immediately preceding FC. Above a sentence boundary, both A and O are taken. The value of Ø<sub>O</sub> is retrieved from A and O in the next following FC, but here the retrieval is prevented by a sentence boundary. The asymmetry principle is based on the Agent being the component that steers the process forward and does so with all its weight. A retrieved value is a shading (root) of the real value. In the example of Table 2, we have a placeholder of type Ø<sub>A</sub>. First, we have to take into account the base value of the placeholder (5.5), then the root is subtracted from the value of *Nos*, which is subtracted from the base value, and we get (3.61634). An example of a case where an Ø<sub>O</sub> has no magnitude is given at the end of the table from another part of the text. The component, case O1, has no value, so the radian for verb + sentence marker grapheme becomes 0.8478. The suspension device plus a dummy variable does not vibrate very much. For other magnitudes according to this system, see B. Bierschenk (2011).

### *Movement through text*

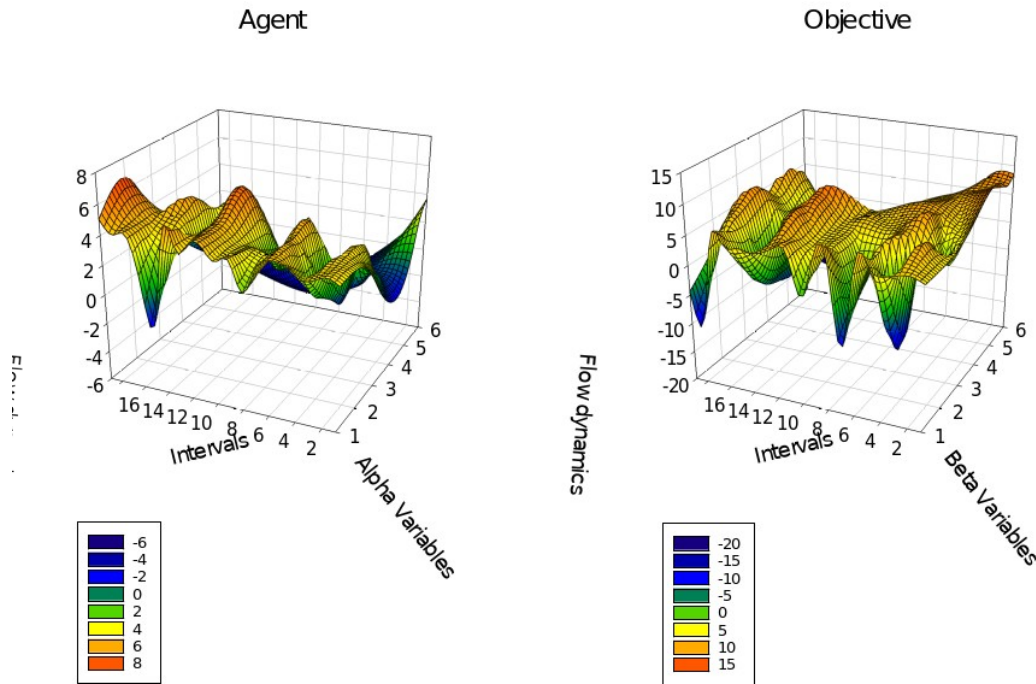
The study assumes that rhythm is something personal. It is the unique way of moving that defines humans and other organisms. This kind of movement is a question of an interaction between inherited experience of an environment and the joint system of the body (Bernstein, 1967; Kugler & Turvey, 1987). The creation of rhythm also applies to movements through text (I. Bierschenk, 1992). Since a person's text is a product of the person herself, the linguistic movements in the text are markers of an internal drive that may be called text intention. However, the text intention is not the same as the intention of the author. Text intention, which creates the motion dynamics, is controlled by the Agent component. Since this mechanism is internal, it cannot be fully controlled by the author of the text. However, when the textual movements have stopped, and we can see them as a three-dimensional summary of energy of various intensity, it is reasonable to relate the result to the author, who is the ultimate agent of the text, and to the situation when the text was written.

Against this background, it is interesting to study how the Agent component has co-worked with the Objective to create motion dynamics in the Latin text and compare it with how the same passage appears in Birgitta's mother tongue.

### ***The Flow Dynamics of the Latin Text***

The energy in the flow dynamics of the Latin Birgitta text will now be studied. The mirror technique means that Agent and Objective can be studied separately while preserving their interdependence. The presentation in Figure 1, which has been made with SigmaPlot (2015), takes place in the form of a three-dimensional landscape through a so-called Potential Energy Surface (PES). The x-axis represents the variables, the y-axis the intervals (delimited by punctuation, i.e. sentence marker (!?) and clause marker (,)), and the z-axis the radians. The data has been entered from the left as with normal reading, so the graphs need to be read from the right, i.e. the movement starts from the lower right corner in the intersection between variable 1 and interval 1. (Background is to be found in Table 1, Appendix 2.)

First, it can be noted that the spaces that are extended for the two components are different in their dimensioning. The Agent in a naturally developed text is smaller than the Objective, so here too. Otherwise, both components have a strongly marked dynamic movement. The landscapes have larger and smaller mountain peaks and more or less deep valleys and ravines. There is an asymmetry in the deviations, for example in such a way that the Agent stays close to the zero line while the Objective varies greatly on both sides of the zero line and has several deep places but also parts where the surface is relatively smooth. Larger deviations within the components usually do not occur in the same interval. However, the deepest points in both the Agent and the Objective appear here at the sixth variable in the seventeenth interval, namely (-3.7167) and (-14.0681) respectively. This place can be called the root or centre of gravity of the text, to which we will return. The other significant deviations occur in so-called anti-phase.



**Figure 1** *Flow dynamics of the revolt revelation in Latin*

We will now look at some strings of graphemes that give rise to the differences. A clear rhythmic difference is seen in the third FC of the first interval, where the Agent descends towards the zero line (1.1112) and the Objective makes a step upwards (5.1810). The corresponding string sequence is (...  $\emptyset_A$  *tangens salute anime vestre*, ...). The root value of the Agent is implicit in the second FC, which in turn is derived from the explicit value in the first FC. Consequently, the value is low due to its weight. The Objective is explicit and becomes high due to accumulation of graphemes. This move means an increase in speed, which is expressed in the smooth surface of the starting section.

A considerable difference is also seen in the fourth interval. The sequence (... $\emptyset_A$  *habere*  $\emptyset_O$  *et*  $\emptyset_A$  *exercere* ...) means that the second  $\emptyset_A$ , which derives its value from above in several stages, stops at (-0.6973) while  $\emptyset_O$  has several roots from subsequent FCs to process, which also include interlaced  $\emptyset_A$  values through the pendulum movement. The movement therefore stops at (-9.7254). In the rest of the fourth interval, the objectives are three different explicit variables (values 6.0916, 6.1701 and 6.5403), while the corresponding agent variables are the same for all three (-0.6973). The other blue (dark) part in the Agent shows the temporary standstill while a ridge rises in the Objective.

The next example is taken from the seventh interval: (*Secundo dubitari*  $\emptyset_O$   $\emptyset_A$  *potest*  $\emptyset_O$  ...). An explicit string sequence and a dummy variable in the next FC give the values (3.6738 and 3.5833) in the Agent, which correspond to two roots on the Objective side, one of which is quite deep (-8.9331, -2.1297), as the second cleft of the graph shows. The

highest point of the Objective occurs in the thirteenth interval. It has to do with an accumulation of strings of graphemes whose magnitude is additionally calculated by a high base value of the component due to the preposition (4.71). The sequence is (... *cum tota terra Scania*, ...), which gives the value (7.4418). Here the agent value is (3.9250). The highest agent value occurs in the last interval at the variable (... *et omnes secundum leges patrie iuste et pie* ...). As in several cases within the Objective, here we have an example of an accumulation of explicit agent strings, which gives the value (6.7824).

Now back to the root of the text in the seventeenth interval. This concerns the passage (...*quod velit terras alienatas reuincere* Ø<sub>0</sub>, ...). The dummy variable, which gives the value (-14.0681), includes, among other things, the highest agent value (above), which is found in the subsequent FC. At this point, the equation is solved, one might say, by the pendulums taking their longest turns in both directions. Birgitta was critical of King Magnus's policies, especially that he had allowed certain lands to be lost, including Scania. Through the method, we have been able to grasp that this is precisely where the centre of gravity in the text lies.

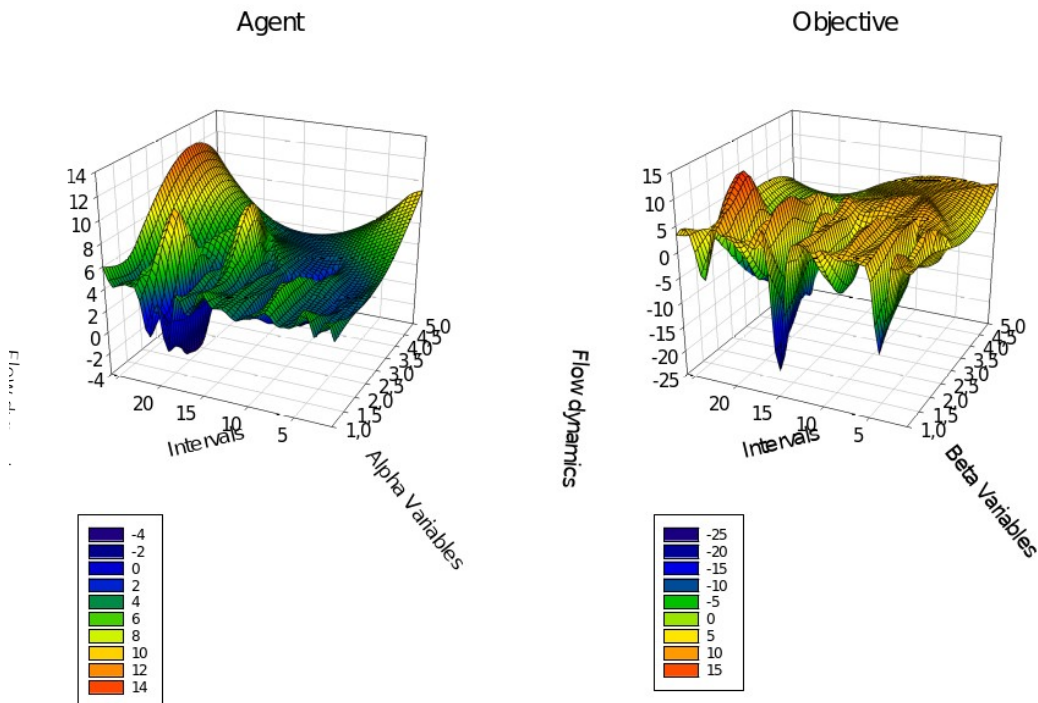
### ***The Flow Dynamics of the Old Swedish Text***

Bergh (2002, p. 22) believes that one must go to the Latin version to get as close as possible to Birgitta. His view is highly reasonable if the study concerns translations of *Revelationes celestes* into various European languages compared with the Latin version. But when it comes to this episode from *Revelationes extravagantes*, there exists an original handwritten document, which should be considered even closer to Birgitta, because it has not been further edited. This version will now be studied. For the present processing, the text is transliterated into a normalized Old Swedish by Bertil Högman (taken from Åström, 2011). From his version, a translation into English can be found in Appendix 1.

Vi hafum nokot þät sigia þät idra siäl varþa. Oc sua sum skriptamal biþium vi idar þät lena, (oc mǣþ flerum orþum tilbyrlekum, ǣn idar þäkis. Ǵn sua ǣr sensus:) I hafin þät fulastu frǣgþ i rik, oc vtan þǣn kristin man ma haua, at I hafin hapt natura bland mǣþ manum, oc þikkis þät vara likt sano. Þy I ǣlskin me[ra] men en Gud ǣlla idra egna siäl ǣlla idra egna husfru. Annat at vi eg vitum eg, huat I hafin rǣtta tro ǣllar eg: Þyt I uarin af kirkiun forþuþit at hōra mǣso. Þǣr gafin I ingte vm, vtan gingin i kirkiu sum fyr oc hōrin mǣsor. Þriþar: I ǣrin vara krono rōuare lans oc gozs. Fiārþa: I hafin varit idra þǣnistomanan oc vnderdana forrǣþare. Skanuga idar oc idrum syni þǣnto, viliandis idar oc idrum syni þǣna oc landit til vara krono mǣþ rǣt halla oc kronona ovinum skǣþa gōra. I anduarþen þem i hǣndar sinum hōxta ouini, suat þe ǣru aldrigh mǣþ han lifar gozs ǣlla lif felughe. Vilin I syndena bǣtra oc landit atar vina, þa vilum vi idar gǣrna þǣna. Vilin I eg siǣlue, þa fan us idan sun, sut I burt farin, ǣlla oc honum kronona opanurþii mǣþ surnum eþe, þät han vili vart land atar vinna, sino rǣþe oc sinum þǣnistomanum lyþa oc almaogin til rǣt styrkia.

Figure 2 gives the graphic presentation of the landscape of the Old Swedish text. (For basic data, see Table 2, Appendix 2). A first observation is that the Objective in the Old Swedish text resembles the Latin shape, for example in terms of the size, the dynamics, moving flow

and a couple of deep clefts. The Agent, on the other hand, differs significantly from the Latin Agent. Above all, this Agent is significantly larger, does not move as tightly and has a smoother rhythm. If Table A1 and Table A2 in the Appendix are compared, it becomes clear that the values of the agent variables of Old Swedish vary somewhat less within the intervals than the values of the objective variables do. If the interaction between Objective and Agent is compared, it turns out that several intervals move in phase, for example the movement within intervals one - three, five - nine and twelve - fourteen. However, there are some places where the movement is in clear anti-phase even in this shape. The deepest point of the Objective is in the fifteenth interval: (*Skanuga idar oc idrum syni piänto Ø<sub>O</sub> ,...*). Because the verb is last in the sentence, the dummy will have to retrieve many roots, as this interval is the longest of the text and has several FCs.



**Figure 2** *Flow dynamics of the revolt revelation in Old Swedish*

The pendular moves result in the root of the text. The value of the Objective is (-20.4389) while the Agent, which has visible rotations (five words) accumulates at the value of (5.5008), which is a relatively high value. The second lowest value in the Objective is in the fourth interval (-11.8378), where the corresponding value for the Agent is one of the highest (5.6520). The string sequence (... *ma Ø<sub>O</sub> Ø<sub>A</sub> haua* ...) is an example of a double verb, which generates two FCs and where the deep objective variable must retrieve roots. The agent gets its value through (...*oc vtan þän kristin man*...), a multi-word variable, which implies a speed in the rotation, when nothing slows down or breaks the pace.



We find the highest agent variable value in the sixteenth interval (9.2316), where the Objective instead slows down and reach its lowest (-8.9827). The text sequence is (... *þiäna Ø<sub>o</sub> oc landit til vara krono mǣþ rät* ...). Here again a fast-moving variable is seen. In the next interval, the Objective presents a similar course. The fastest rotation occurs in the next interval (... *i händar sinum höxta ouini* ...), which gives the value (6.6564), but here the variable is only one grapheme (i), which together with the component value becomes the lowest possible for an explicit variable (3.4854). Where the Agent moves down to its lowest value (-3.05302), the Objective follows down to (-7.34529). The text passage is the second variable pair of the nineteenth interval (... *Vilin I syndena Ø<sub>A</sub> bǣtra Ø<sub>o</sub> oc*...). In the last interval, the twenty-sixth, the Agent rises in a wave (6.0372) while the Objective stops (0.8792): The movement corresponds to the following sequence: (... *oc almaogin til rät styrkia Ø<sub>o</sub>* ).

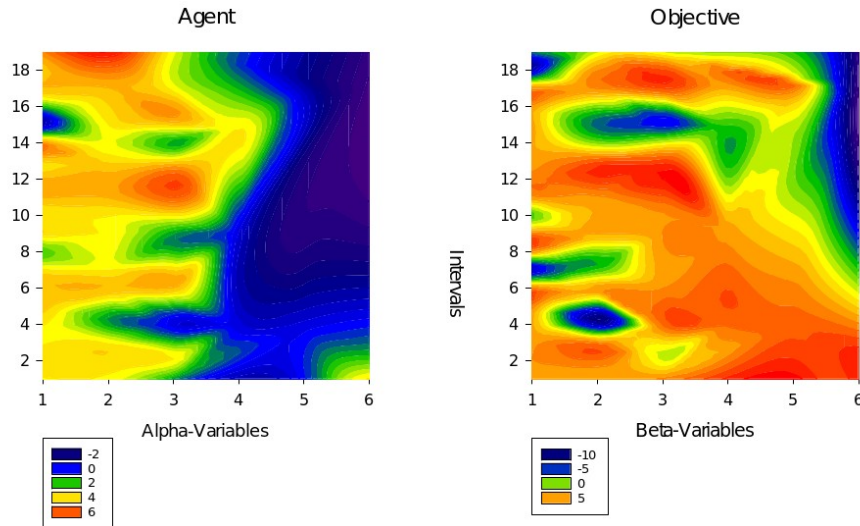
### ***In Search of Authenticity***

This study has not aimed to go into the message that the texts convey, but the study of textual movement based on grapheme analysis shows that it matters whether one looks at the original language or the Latin, which raises questions about authenticity. Bergh considers the possibility that Birgitta's helpers have changed her original but concludes that it is not plausible, as they were convinced of her divine mission. However, Alfonso was mandated to make the adjustments required for the content to be approved in a theological context. But, writes Bergh, "in fact it has not been possible to show (in the comparatively few cases where the matter can in principle be subject to examination) that Birgitta's text has been changed other than in a marginal respect " [transl. from Swedish by present author] (Bergh, 2002, p. 121).

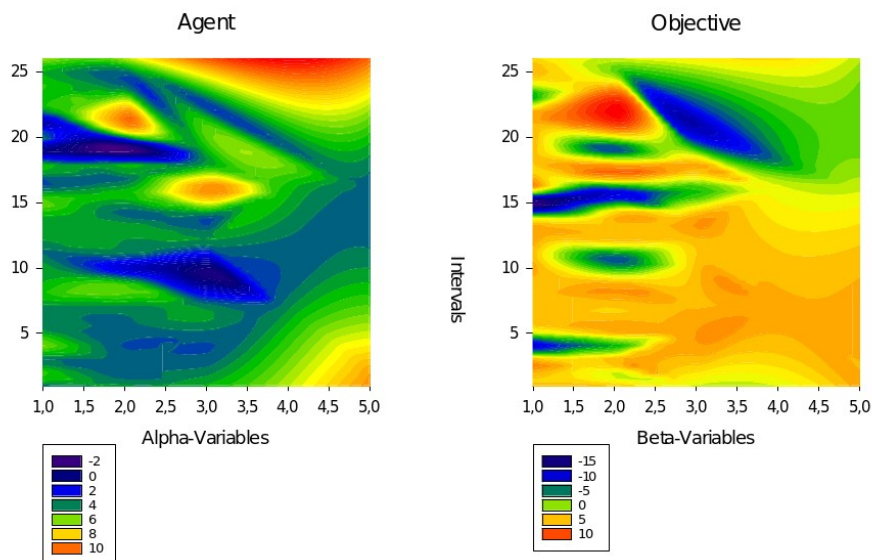
The Objective, which controls the orientation (subject, theme), shows a very similar form in the two text sections, which indicates that indeed only marginal deviations have occurred in the editing process. On the other hand, the Agent, which controls the text intention (perspective) and thus determines the textual flow dynamics, shows that the translation into Latin has clearly involved a change in perspective, which indicates an adaptation by someone other than the original author. The deeper in the structure the text moves, the more personally anchored it is. We have seen that the root in the Old Swedish text goes deeper than the Latin root. It appears during the sequence where Birgitta dwells on the Scanian people's trust in Magnus, of which she wants to remind him. The Latin root goes down at the point where she urges him to reconquer the Scanian lands. In her mother tongue, she thinks mainly of the king of the people, while in Latin she turns him into a warlord, which he really was not. To get closest to Birgitta, you should therefore go for the Old Swedish variant, which has now become "subject to examination".

So far, we have seen that the placing of the root makes evident that the two texts differ in depth, which we now have been able to interpret. Another type of PES graph for imaging energy or intensity is the contour graph representing geological variation, which is two-dimensional. The

result looks like an aerial photo where the energy is scanned with a thermal imaging camera. This type of presentation has previously been used to study the extent to which a text can be said to express heat or cold, completely apart from content (I. Bierschenk, 2021). To complete the picture of the intensity in the Birgitta texts, we will now look at them when a thermal imaging camera has scanned them. First, we see the Latin “heat development”, then the Old Swedish. The graphs are read from the left corner upwards.



**Figure 3** *Intensity of the Latin landscape*



**Figure 4** *Intensity of the Old Swedish landscape*

Through the way of considering the forward movements in the text as the development of heat, the picture emerges again that the Objectives have great similarities in their way of moving. However, the colour scale in the graphs suggests differences in intensity. The scale says that the moves vary less in Latin, although they are more powerful. Old Swedish moves more quietly and lingering, at the same time somewhat more evenly over most of the surface but with greater weight in flowing towards the end. There, instead, the Latin lightens the pressure a bit.

As mentioned, Agent and Objective drive forward through an interaction between the variables. This interaction should be based on the principle of asymmetry between the parts. Based on this graph type, it can be observed that the interaction in Latin is not optimal. The Agent displays a coherent portion, where the deep colour testifies to implicit variables towards the end of the intervals in a systematic way (that is only faintly visible in Figure 1). Such a textual movement expresses insistent appeal and appears unbalanced in relation to the Objective, because this is so forceful. The Old Swedish Agent, on the contrary, appears to be complementary to the Objective, the first half with less variability, the second with somewhat greater. Overall, the colour shift in the Old Swedish Agent indicates equilibrium and low intensity.

### Discussion

The two ways of presenting results complement each other. The three-dimensional type accesses that which is deeply integrated, while the two-dimensional type provides an overview of energy shifts on the expanded text surface. When Birgitta wrote her appeal to King Magnus in her mother tongue, she did so in a controlled frame of mind, but when others helped her, the text became more heated. In his chapter on Birgitta as a writer, Bergh mentions that Birgitta asked Alfonso to make the text more “burning” if needed, because she considered herself unable to fulfil that requirement (Bergh, 2002, p.119). Many conceptions of Birgitta have been produced over the centuries, and it is difficult not to take into consideration that they may have been governed by the ideas of their times (Nynäs, 2002). Further, to think that one can get to know a person from the middle Ages is probably presumptuous. Research on Birgitta covers a wide range of themes, from her sensuality over her aristocratic interests to spirituality and visions. This study does not claim to have come to any answer. Nevertheless, one may ponder about which image of Birgitta were the prevailing one, if her autographs had been fully preserved.

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## Appendix 1: Translations

The purpose of the translations is to give the reader an overview of the main content, not to provide a literary work, and to show that there are slight differences in the wordings.

Information about King Magnus Eriksson (From Wikipedia, 2023):

Magnus IV (April or May 1316 – 1 December 1374; Swedish *Magnus Eriksson*) was King of Sweden from 1319 to 1364, King of Norway as Magnus VII (including Iceland and Greenland) from 1319 to 1355, and ruler of Scania from 1332 to 1360. By adversaries he has been called *Magnus Smek* (English: *Magnus the Caresser*).

### ***Latin text into English***

/.../ "We have something to say to you concerning the salvation of your souls, which we ask you to keep under the seal of confession." /.../ "You have a very bad reputation in the whole kingdom, saying that you have and practice natural intercourse and indecency with males against the natural disposition. This seems likely from the fact that you love some men more than God, or your own soul, or your own wife. Secondly, it may be doubted whether you have the right faith, because being forbidden by the church to hear mass, you entered the churches and heard the masses. Thirdly, you are a prey to the crown and the goods of the kingdom. Fourthly, that you are a traitor to your servants and subjects, who faithfully served you and your son, whom you voluntarily delivered into the hands of their worst enemy, together with the whole land of Scania, for whose malice and treachery they will never be able to safely secure with him alive. If you decide to make amends for these sins and regain the alienated lands, we will serve you. If, however, you entrust the kingdom to your son under the oath, that he wants to regain alienated lands, to love the community, to exist faithful to his soldiers and to rule and govern all according to the laws of the country justly and piously. /.../ (Google Translate)

### ***Old Swedish via modern Swedish into English***

" We have something to say concerning your soul, and as a matter of scripture we bid you give relief to it," /.../ "You have the ugliest reputation in the kingdom, and without it a Christian man should be, that you have had intercourse with men. And, it seems to be probable, Secondly, we do not know whether you have the right faith or not: Because you have been forbidden by the church to hear mass, you did not care, but went to church as before and heard masses. Thirdly: You are robber of our crown's land and property. Fourth: You have been traitor to your officials and subjects. The Scanians served you and your son and wanted to serve you and your son and keep the land for our crown and do harm to the crown's enemies. You delivered them into the hands of their worst enemy, so that they are never, while he lives, safe in property or life. If you want to atone for your sins and reclaim the country, then we would like to serve you. If you don't want to yourself, then give us your

<i>Variables</i>	<i>X</i>	<i>Y</i>	<i>A</i>	<i>O</i>
1	1	1	3.5482	4.1762
2	2	1	3.6163	4.1134
3	3	1	1.1112	5.1810
4	1	2	3.9250	4.9820
5	2	2	3.9250	5.8437
6	3	2	3.5188	0.8478
7	1	3	3.5482	4.7100
8	2	3	3.5482	5.4566
9	1	4	3.6163	4.1134
10	2	4	1.2711	- 9.7253
1	3	4	- 0.6972	6.0916
12	4	4	- 0.6972	6.1701
13	5	4	- 0.6972	6.5403
14	1	5	4.2076	5.3326
15	1	6	4.3646	5.6205
16	2	6	4.3646	4.6158
17	3	6	4.3646	4.9926
18	1	7	3.6738	- 8.9331
19	2	7	3.5832	- 2.1296
20	1	8	1.9602	4.6472
21	1	9	3.9250	5.6590
22	2	9	3.5188	4.1448
23	3	9	1.1736	5.0240
24	4	9	- 0.7947	4.5530
25	1	10	3.6424	- 1.7369
26	2	10	3.5914	4.1134
27	3	10	3.5914	4.8670
28	1	11	4.4273	4.7413
29	2	11	4.4273	4.7413
30	1	12	4.4902	5.5892
31	1	13	3.9250	4.4273
32	2	13	3.9250	6.8112
33	3	13	3.9250	7.4418
34	1	14	5.0740	4.1134
35	2	14	3.2400	- 0.6015
36	3	14	1.3527	0.9106
37	1	15	- 1.5694	4.3646
38	2	15	3.5796	- 4.6255
39	3	15	4.0191	- 6.7956
40	4	15	3.4952	- 2.0249
41	1	16	1.4953	4.5530
42	1	17	4.3646	5.2752
43	2	17	4.3646	5.1083
44	3	17	3.4108	7.0434

son, so that you can go away, or else entrust the crown to him with sworn oaths, that he wants to recover our land, listen to his advice and his officials and strengthen the rights of the common people.” (First transliterated from Old Swedish into a readable version by Högman in Åström (2011). Second translation into English by Google Translate).

## Appendix 2: Base data

**Table 1**  
*Magnitudes for the Latin text*

**Table 2**  
*Magnitudes for the Old Swedish text*

<i>Variables</i>	<i>X</i>	<i>Y</i>	<i>A</i>	<i>O</i>
1	1	1	3.5168	4.0820
2	2	1	4.0328	3.7433
3	3	1	4.4273	0.8164
4	1	2	4.9612	4.8670
5	2	2	3.2726	0.7850
6	1	3	25	3.4854
7	2	3	3.4854	5.0240
8	1	4	3.4854	4.7988
9	2	4	5.6520	-
10	1	5	3.1226	11.8378
11	2	5	4.2076	-
12	3	5	4.4487	4.4601
13	1	6	4.2076	0.2207
14	2	6	3.4487	4.5530
15	1	7	3.4487	6.0288
16	2	7	3.8622	4.0506
17	3	7	3.5347	4.8042
18	4	7	3.8622	4.4902
19	1	8	3.8622	3.9250
20	1	9	3.8622	4.8983
21	2	9	3.8622	5.3066
22	1	10	4.7413	3.9878
23	2	10	4.3018	4.4902
24	3	10	4.3018	3.9878
25	1	11	4.2390	5.4633
26	2	11	1.0959	-
27	1	12	4.4174	4.3646
28	2	12	-	0.8725
29	3	12	3.5482	4.4588
30	1	13	3.5482	-
31	2	13	3.9250	6.0628
32	1	14	3.9250	5.4173
33	2	14	3.9250	3.9564
34	3	14	3.8956	4.4273
35	1	15	4.3332	5.4322
36	2	15	4.3332	4.3018
37	1	16	4.3332	-
38	2	16	3.4183	2.1019
39	3	16	3.4183	4.7728
40	1	17	5.0240	5.0240
41	2	17	5.5008	-
42	1	18	3.5214	20.4389
43	2	18	3.5214	4.1762
44	3	18	4.4273	-
45	4	18	9.2316	8.9826
46	1	19	4.5530	-
47	2	19	4.5530	3.3460
48	3	19	4.5530	1.3860
49	1	20	3.3662	1
50	2	20	0.7850	0.7850
51	1	21	3.4854	4.1448
52	2	21	3.4854	6.6564
53	1	22	4.3018	4.0820
54	2	22	4.3018	4.0506